

North Shore Water Utility Nelson Ltd. Monthly Report

To: Pouria Mojtahedi, Large Water Systems Environmental Health Officer, Interior Health Authority
From: Aqua Diversities Inc.
Date: May 15, 2023
Re: Monthly Report for North Shore Water Utility - **April 2023**

This document includes the following items as part of the monthly report for the North Shore Water Utility Nelson Ltd. (NSWU):

- 1.0 Daily Water Consumption**
- 2.0 Microbiological Test Results**
- 3.0 Operator Log Sheets and Water Quality Events**
- 4.0 Major Operational Events**
- 5.0 Records of Customer Feedback and Response**

Submission of this report is to enhance communication with the local Environment Health Officer (EHO) and meet requirements for status compliance on the conditions summarized in the Operating Permit.

1.0 Daily Water Consumption

Total water consumption in April was 5,635 m³; average daily consumption was 187.83m³/day. The average flow was 7.83 m³/hr.

2.0 Microbiological Test Results

A sample from both ends of the distribution system is collected and submitted to an accredited laboratory for bimonthly microbiological testing.

All monthly testing results satisfy the Maximum Allowable Concentration (MAC) standard as set out by the Guidelines for Canadian Drinking Water Quality (GCDWQ).

See **Appendix A** for Laboratory Results

3.0 Operator Log Sheets and Water Quality Events

NSWU continues to be tested on an every-other-day schedule as specified by the EHO. The log sheets include comments on the source, treatment, and distribution system events. Log sheets also include information on the weather for the corresponding test date, which helps correlate weather events to turbidity levels.

Throughout the month of April, chlorine residuals were maintained above 0.5 mg/L across the distribution system.

See **Appendix B** for Operator Log Sheets.

4.0 Major Operational Events

On March 21st, a Water Quality Advisory was posted due to seasonal turbidity ≥ 1 NTU.

The IHA Health Officer was notified of this action. The NSWU website was updated, a text alert notification to subscribers was sent out and community signage was posted.

There were no other major events to report for the month of April.

Note that the pilot plant located in the Isaac Creek reservoir building continues to operate with the treated water going to waste (as per direction from EHE Marianne Crowe).

5.0 Records of Customer Feedback and Response

Aqua personnel responded to concerns of water leaking at 564 Valhalla rd. Water main was shut off to determine the issue. Customers affected were notified .Upon inspection we identified the source of the issue to be a faulty curb stop and efficiently repaired.

There were no other customer inquiries in the month of April.

Report Reviewed by:



Nicole Ward, BSc.P.Ag. Project Manager

Appendix A

Laboratory Results

ANALYTICAL RESULTS

Sample ID	Main Jet			Sample #	1	
Date/Time Sampled	2023-04-11	1:05 PM	Matrix	TW	Temperature on Receipt	10
Date/Time on Test	2023-04-11	4:20 PM				
<u>Analyses</u>		<u>Result</u>	<u>Units</u>	<u>RDL</u>		
Coliforms, Total		Less than 1	CFU/100mL	1		
Verified E.coli		Less than 1	CFU/100mL	1		

Sample ID	538 Johnstone Rd			Sample #	2	
Date/Time Sampled	2023-04-11	1:20 PM	Matrix	TW	Temperature on Receipt	9
Date/Time on Test	2023-04-11	4:20 PM				
<u>Analyses</u>		<u>Result</u>	<u>Units</u>	<u>RDL</u>		
Coliforms, Total		Less than 1	CFU/100mL	1		
Verified E.coli		Less than 1	CFU/100mL	1		

Glossary of Terms

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
APHA	American Public Health Association
CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

References

ANALYTICAL RESULTS

Sample ID	Main Jet			Sample #	1	
Date/Time Sampled	2023-04-25	12:30 PM	Matrix	TW	Temperature on Receipt	11

Date/Time on Test 2023-04-25 5:20 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	538 Johnstone Rd			Sample #	2	
Date/Time Sampled	2023-04-25	12:00 PM	Matrix	TW	Temperature on Receipt	10

Date/Time on Test 2023-04-25 5:20 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

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References

Appendix B

Operator Log Sheet

Month: <u>Apr-23</u>												
		MainJet							538 Johnstone Rd			
Date	Time	Cl2 Pump Setting	CL2 pump duration	CL2 pump frequency	Raw Water Turbidity (Res.)	CL2 Residual (Res.)	CL2 Residual (Dist.)	CL2 Residual (Dist.)	Comments	Weather	Sampled By	
YY/MM/DD	24:00:00	Isaac Cr. (1-10)			Isaac Cr. NTU	Isaac Cr. mg/l	mg/L	mg/L	Microbiological Sample Taken/Filter Change/Etc.	Precip./Temp.		
4/2/2023												
4/3/2023												
4/4/2023	15:10	40%	2	5	0.7	0.69	0.66	0.67	topped up CL2	cloud 4	mb	
4/5/2023												
4/6/2023	8:30				0.76	0.66						
4/7/2023												
4/8/2023	9:20				0.72	0.44						
4/9/2023												
4/10/2023												
4/11/2023	5:00	%40	2	3	1.7	0.43	0.19	0.47	BaCT samples taken	Cloudy	FD	
4/12/2023												
4/13/2023	11:30	%40	2	4	1.4	0.94	0.81	0.54	increase cl2 pump pulse rate	sun 4	mb	
4/14/2023												
4/15/2023	1:15				1.7	0.56						
4/16/2023												
4/17/2023												
4/18/2023	11:00	%40	2	4	1.13	1.04	0.63	0.31	topped up cl2, flashed cl2analyzer	rain 5	mb	
4/19/2023												
4/20/2023	12:00	%40	2	6	1.06	0.91	0.71	0.79	flushed cl2 analyzer, increased cl2pump rate from 5to 6	cloud 4	mb	
4/21/2023												
4/22/2023	7:30				1.32	0.71			remote monitor		mb	
4/23/2023												
4/24/2023												
4/25/2023	12:00	%40	2	6	0.92	0.71	0.67	0.57	microbac samples	sun 15	mb	
4/26/2023												
4/27/2023	11:45	40	2	6	0.77	0.67	0.69	0.71			wes	
4/28/2023												
4/29/2023					1.09	0.95			remote		mb	
4/30/2023												